



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,330	07/01/2005	Toshimasa Sagawa	121036-0086	1091
35684	7590	10/11/2006		
BUTZEL LONG 350 SOUTH MAIN STREET SUITE 300 ANN ARBOR, MI 48104			EXAMINER CHEUNG, WILLIAM K	
			ART UNIT	PAPER NUMBER
			1713	

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/541,330	Applicant(s) SAGAWA ET AL.	
	Examiner William K. Cheung	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) 11-14 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-10 and 15 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>101205_070105</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Restriction/Election

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-10, 15, drawn to polymerization process, classified in class 526, subclass 245.
 - II. Claims 11-14, drawn to product of an aqueous dispersion, classified in class 526, subclass 932.
2. Inventions Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process as claimed can be used to make other and materially different product, such as an aqueous dispersion that does not contain any polyfluoroalkyl group.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Art Unit: 1713

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

5. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper. It renders undue burden for the examiner to search both inventions at the same time.

6. During a telephone conversation with Michael S. Gzybowski (Reg. No. 32,816) on September 28, 2006 on inventions Group I and II, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-10, 15. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-14 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-6, 8-10, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Saito (US 6,387,292).

*The invention of claims 1-10, 15 relates to a **process for preparing an aqueous dispersion**, characterized by subjecting **(meth)acrylate** containing a **polyfluoroalkyl group** and a **polymerizable monomer free of fluorine atoms** to an **emulsification treatment** in the presence of a **surfactant** and a **polypropyleneglycol-based compound** having a molecular weight of **250 to 5,000**, followed by copolymerization reaction in the presence of a **polymerization initiator**.*

Saito (col. 3, line 57; abstract) disclose a process of preparing an anti-soil composition in the form of an aqueous dispersion comprising a fluoroalkyl group-containing monomer with a polymerizable monomer free of fluorine atoms, and polypropylene glycol having an average molecular weight of not more than 1,000. Saito (col. 2, line 12-13) disclose a C₁₂-fluoroalkyl group containing monomer. Saito (col. 3, line 10-20) disclose a list of polymerizable monomers that include cyclohexyl

Art Unit: 1713

(meth)acrylate, benzyl (meth)acrylate, stearyl (meth)acrylate, acrylamide. The disclosed stearyl (meth)acrylate of Saito (col. 3, line 10-20 generically includes stearyl acrylate in view of claim 2 of Saito, where a (meth)acrylate ester also includes an acrylate ester. Saito clearly indicate using a polymerization initiator (col. 4, line 67), and surfactants (col. 5, line 65 to col. 6, line 7). Saito (col. 4, example 1) disclose a formulation comprising at least 10 wt% of polyfluoroalkyl groups. Saito contains all the limitations of claims 1-6, 8-10, 15. Claims 1-6, 8-10, 15 are anticipated.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Art Unit: 1713

11. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Saito (US 6,387,292) in view of Fitzgerald (US 6,180,740).

Set forth from paragraph 9 of instant office action, the process of claim 7 is very similar to the process of Saito.

The difference between the invention of Saito and claim 7 is that Saito is silent on a process that uses a polyethylene oxide-based nonionic surfactant or a cationic surfactant.

However, in view of substantially identical endeavor of Fitzgerald (abstract) and Saito (col. 1, line 16) in developing an oil-repellent composition, motivated by the expectation of success of developing an oil-repellent composition, it would have been obvious to one of ordinary skill in art to incorporate the non-ionic surfactants teachings of Fitzgerald into the composition teachings of Saito to obtain the invention of claim 7.

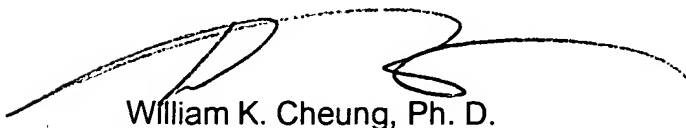
Applicants must recognize that Fitzgerald (col. 6, line 18-48) clearly indicates that cationic, anionic, and non-ionic surfactants are equally valuable and compatible to each other in the formulation of an oil-repellent composition without any negative effect.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William K. Cheung whose telephone number is (571) 272-1097. The examiner can normally be reached on Monday-Friday 9:00AM to 2:00PM; 4:00PM to 8:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David WU can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



William K. Cheung, Ph. D.

Primary Examiner

September 29, 2006

**WILLIAM K. CHEUNG
PRIMARY EXAMINER**